

**RoHS  
Compliant**



### Features:

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents

### Mechanical Data:

Case	: JEDEC DO-41
Case Material	: Molded Plastic
Terminals	: Axial lead, solderable per MIL- STD-202, Method 208
Polarity	: Colour band denotes cathode
Weight	: 0.012 ounces, 0.34 grams
Mounting position	: Any

### Max. Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

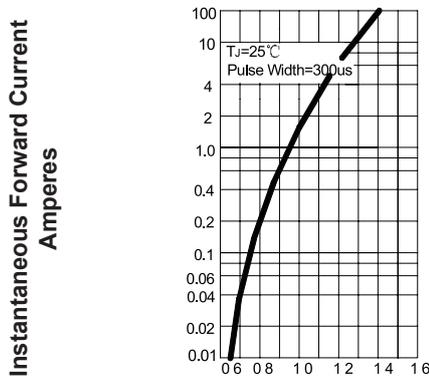
Characteristic	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Max. Recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1,000	V
Max. RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Max. DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1,000	V
Max. average forward rectified current 9.5mm lead lengths, @ $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ\text{C}$	$I_{FSM}$	40							A
Max. instantaneous forward voltage @ 1.0 A	$V_F$	1							V
Max. reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical junction capacitance (Note1)	$C_J$	15							pF
Typical junction capacitance (Note2)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

### Note:

1. Measured at 1MHz and applied reverse voltage of 4V DC.
2. Thermal resistance from junction to ambient.

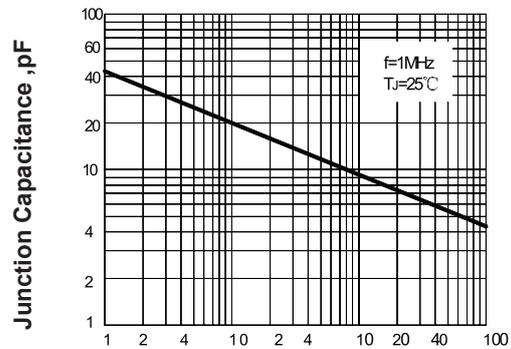
## Ratings And Characteristic Curves

Fig.1 -- Typical Forward Characteristic



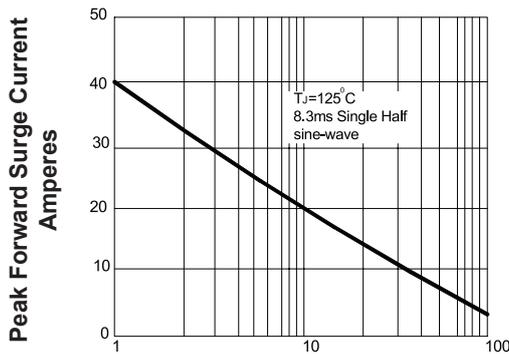
Instantaneous Forward Voltage, Volts

Fig.2 -- Typical Junction Capacitance



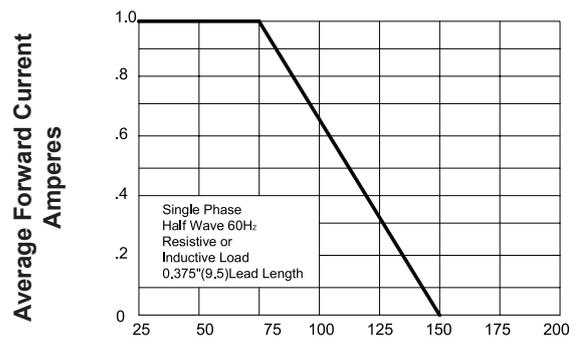
Reverse Voltage, Volts

Fig.3 -- Peak Forward Surge Current



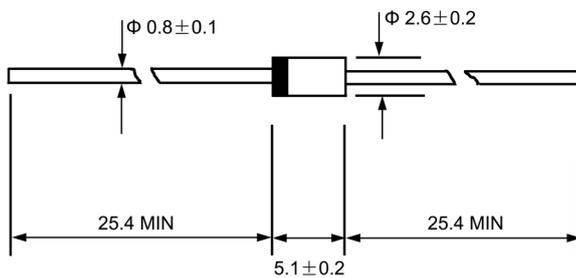
Number Of Cycles At 60Hz

Fig.4 -- Forward Derating Curve



Ambient Temperature, °C

### DO - 41



Dimensions : Millimetres

### Part Number Table

Description	Part Number
Plastic Silicon Rectifiers	1N4001-1N4007

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